

# PATENT COOPERATION TREATY

# PCT

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference PHNL040045WO	<b>FOR FURTHER ACTION</b>	See item 4 below
International application No. PCT/IB2005/050212	International filing date ( <i>day/month/year</i> ) 18 January 2005 (18.01.2005)	Priority date ( <i>day/month/year</i> ) 21 January 2004 (21.01.2004)
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237		
Applicant KONINKLIJKE PHILIPS ELECTRONICS N.V.		

1.	This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a).																								
2.	<p>This REPORT consists of a total of 7 sheets, including this cover sheet.</p> <p>In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.</p>																								
3.	<p>This report contains indications relating to the following items:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 10%; text-align: center;"><input checked="" type="checkbox"/></td> <td style="width: 30%;">Box No. I</td> <td style="width: 60%;">Basis of the report</td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Box No. II</td> <td>Priority</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. III</td> <td>Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. IV</td> <td>Lack of unity of invention</td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Box No. V</td> <td>Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. VI</td> <td>Certain documents cited</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. VII</td> <td>Certain defects in the international application</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. VIII</td> <td>Certain observations on the international application</td> </tr> </table>	<input checked="" type="checkbox"/>	Box No. I	Basis of the report	<input checked="" type="checkbox"/>	Box No. II	Priority	<input type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability	<input type="checkbox"/>	Box No. IV	Lack of unity of invention	<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement	<input type="checkbox"/>	Box No. VI	Certain documents cited	<input type="checkbox"/>	Box No. VII	Certain defects in the international application	<input type="checkbox"/>	Box No. VIII	Certain observations on the international application
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4.	The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).																								

<p style="text-align: center;">The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland</p> <p>Facsimile No. +41 22 338 82 70</p>	<p>Date of issuance of this report 24 July 2006 (24.07.2006)</p> <p>Authorized officer  <div style="text-align: right;">Cecile Chatel</div></p> <p>e-mail: pt13@wipo.int</p>
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# PATENT COOPERATION TREATY

From the  
INTERNATIONAL SEARCHING AUTHORITY

REC'D 06 MAY 2005

PCT PCT

To:

see form PCT/ISA/220

## WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing  
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference  
see form PCT/ISA/220

**FOR FURTHER ACTION**  
See paragraph 2 below

International application No.  
PCT/B2005/050212 ✓

International filing date (day/month/year)  
18.01.2005 ✓

Priority date (day/month/year)  
21.01.2004

International Patent Classification (IPC) or both national classification and IPC  
G10H1/40

Applicant  
KONINKLIJKE PHILIPS ELECTRONICS N.V. ✓

### 1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☒ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the International application
- ☐ Box No. VIII Certain observations on the International application

### 2. FURTHER ACTION

If a demand for International preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

### 3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



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D-80298 Munich  
Tel. +49 89 2399 - 0 Tx: 523656 epmu d  
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Authorized Officer

Lecoite, M

Telephone No. +49 89 2399-5266



**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/B2005/050212

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**Box No. I Basis of the opinion**

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1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.  
☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
  - a. type of material:  
☐ a sequence listing  
☐ table(s) related to the sequence listing
  - b. format of material:  
☐ in written format  
☐ in computer readable form
  - c. time of filing/furnishing:  
☐ contained in the International application as filed.  
☐ filed together with the international application in computer readable form.  
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

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**Box No. II Priority**

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1. ☒ The validity of the priority claim has not been considered because the International Searching Authority does not have in its possession a copy of the earlier application whose priority has been claimed or, where required, a translation of that earlier application. This opinion has nevertheless been established on the assumption that the relevant date (Rules 43*bis*.1 and 64.1) is the claimed priority date.
2. ☐ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43*bis*.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.
3. Additional observations, if necessary:

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/IB2005/050212

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**Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

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**1. Statement**

Novelty (N)	Yes: Claims	6,7,9-11
	No: Claims	1-5, 7-8, 12-13
Inventive step (IS)	Yes: Claims	
	No: Claims	6,7,9-11
Industrial applicability (IA)	Yes: Claims	1-13
	No: Claims	

**2. Citations and explanations**

**see separate sheet**

**Re Item V**

**Reasoned statement with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement**

1. Reference is made to the following documents:  
D1: Musical Genre Classification of Audio Signals  
Georges Tzanetakis and Perry Cook  
IEEE Trans. on Speech and Audio Processing Vol 10, No 5, July 2002  
D2: Tempo and beat analysis of acoustic musical signals  
E. Scheirer  
Journal of The Acoustical Society of America, 1998
2. The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claims 1, 2, 3, 4, 5, 8, 9, 12 and 13 is not new in the sense of Article 33(2) PCT.
  - 2.1 The document D1 discloses (the references in parentheses applying to this document):  
"A method for determining a measure of tempo ambiguity for a music input signal (D1, figure 1 and page 295, column 2 paragraphs 3-4), which method comprises:
    - identifying candidate tempos of the music input signal (figure 1, see the steps from "Discreet Wavelet Transform Octave Frequency Bands" to "Beat Histogram", and page 296 from point 1 in column 1 to point 6 in column 2);
    - ranking the candidate tempos according to their relative strengths (mandatorily included when calculating the "first and second BH peaks");
    - compiling a tempo scheme comprising the relationship of the ranked candidate tempos to each other (see D1, column 1 page 297 paragraph 1, in particular the word "Ratio of amplitudes")."Claim 1 is therefore not new over the prior art D1 (Art. 33(2) PCT).
  - 2.2 D1 further discloses a method "wherein a dominant tempo and subordinate tempos are identified among the candidate tempos (see D1, figure 3 and column 1 page 297).", and renders claim 2 not new over the prior art D1 (Art. 33(2) PCT).
  - 2.3 The subject matter of claims 3 and 4 is disclosed in D1, page 297 column 1 paragraph

- 2, and is hence not novel over the prior art D1 (Art. 33(2) PCT).
- 2.4 The independent system claim 5, corresponding to the independent method claim 1 is not new over D1 either (see section 2.1 of the present International Preliminary Opinion).
- 2.5 Following the above remarks in sections (2.1-2.4), claims 8, 12 and 13 are considered as not new over the prior-art (Art. 33(2) PCT).
3. The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claims 6, 7, 9, 10 and 11 does not involve an inventive step in the sense of Article 33(3) PCT.
- 3.1 The additional feature claimed in claim 7 illustrates an obvious non technical feature that merely represents the consequence of the implementation of the method defined in D1. Claim 7 is therefore not inventive over D1 (Art. 33(3) PCT).
- 3.2 It is well known in the art that the steps preceding the "peak picking" of figure 1 in D1, may be substituted by alternative beat detection techniques, an example of which is disclosed in D2. Indeed, the method detailed in D2 is regarded as demonstrating a well known implementation alternative for detecting beats from a sound source using a bank comb-filters, instead of using an autocorrelation method (as disclosed in D1, figure 1). Since the subject matter of claim 6 recites the exact method accounted in D2 (see section II and figure 3), claim 6 cannot be considered to perform an inventive step over D1 in light of D2 (Art. 33(3) PCT).
- 3.3 Claims 9, 10 and 11 represent very common applications of rhythm feature extractors. Some examples of these well known devices are referenced in the International Search Report, namely:
- Query by tempo using rhythm feature extraction (EP1371055)
  - Automatic Disk Jockey (US2001039872)
  - Selecting music based on physiological parameters (EP1251441)
- The present claims 9-11 are therefore not fulfilling the Art 33(3) PCT.
4. It currently appears from the present set of claims that no claim is meeting the

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING  
AUTHORITY (SEPARATE SHEET)**

International application No.

PCT/IB2005/050212

requirements of the PCT with regard to Articles 33(1)-(3).



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INTERNATIONAL SEARCHING AUTHORITY

REC'D 06 MAY 2005

~~WIPO~~ PCT PCT

To:

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## WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing  
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See paragraph 2 below

International application No.  
PCT/IB2005/050212 ✓

International filing date (day/month/year)  
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Fax: +49 89 2399 - 4465

Authorized Officer

Lecointe, M

Telephone No. +49 89 2399-5266





**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/IB2005/050212

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**Box No. I Basis of the opinion**

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**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

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	No: Claims	6,7,9-11
Industrial applicability (IA)	Yes: Claims	1-13
	No: Claims	

**2. Citations and explanations**

**see separate sheet**

**Re Item V**

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